US 20170170023A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2017/0170023 A1**

CHUNG et al. (43) **Pub. Date: Jun. 15, 2017**

(54) **METHOD OF FABRICATING A SEMICONDUCTOR DEVICE**

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(21) Appl. No.: **15/291,268**

(22) Filed: **Oct. 12, 2016**

(30) **Foreign Application Priority Data**

Dec. 10, 2015 (KR) 10-2015-0175567

Publication Classification

(51) **Int. Cl.**

H01L 21/285 (2006.01)
H01L 21/768 (2006.01)
H01L 21/8238 (2006.01)

(52) **U.S. Cl.**

CPC ***H01L 21/28518*** (2013.01); ***H01L 21/823871*** (2013.01); ***H01L 21/823878*** (2013.01); ***H01L 21/76895*** (2013.01)

(57) **ABSTRACT**

There is provides a method of fabricating a semiconductor device to decrease contact resistance of source/drain regions and gate electrodes and thereby improve operation performance. The method includes providing an exposed silicon region, forming a rare earth metal silicide film on the exposed silicon region, the rare earth metal silicide film contacting the silicon region, and forming a contact on the rare earth metal silicide film, the contact being electrically connected to the exposed silicon region, wherein the rare earth metal silicide film is formed by simultaneously supplying a rare earth metal and silicon to the exposed silicon region using physical vapor deposition.